

**PATENT**

Atty. Dkt. AMAT/7681/MASK/MASK-ETCH/ARNOLD S  
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**ABSTRACT OF THE DISCLOSURE**

Method and apparatus for etching a metal layer disposed on a substrate, such as a photolithographic reticle, are provided. In one aspect, a method is provided for processing a photolithographic reticle including positioning the reticle on a support member in a processing chamber, wherein the reticle comprises a metal photomask layer formed on a silicon-based substrate, and a patterned resist material deposited on the silicon-based substrate, etching the substrate with an oxygen-free processing gas, and then etching the substrate with an oxygen containing processing gas.

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